



**Department of
Environmental Protection
Bureau of Land & Water Quality March 2001**

O&M Newsletter

A monthly newsletter for wastewater discharge licensees, treatment facility operators and associated persons

**UPCOMING TRAINING
COURSES**

March 1, 2001 in Bangor, ME – Electric Motors: Types, Installations & Maintenance - sponsored by MRWA, (207) 729-6569 - Approved for 4 hours.

March 5, 2001 in Brewer - Advanced Septic System Technologies - sponsored by JETCC, (207) 767-2649 - Approved for 6 hours.

March 8, 2001 in Presque Isle - Basic Chemistry - sponsored by JETCC, (207) 767-2649 - Approved for 6 hours.

March 9, 2001 in Brunswick, ME – Wastewater Operator Certification Review – Class I/II - sponsored by MRWA, (207) 729-6569 - Approved for 6 hours.

March 14, 2001 in So. Portland - Physical/Chemical Treatment - sponsored by JETCC, (207) 767-2649 - Approved for 6 hours.

March 14, 2001 in Newport, ME – Excavations and Permit Required Confined Spaces - sponsored by MRWA, (207) 729-6569 - Approved for 5 hours.

March 14, 2001 in Dover-Foxcroft - Onsite Installers Workshop - sponsored by JETCC, (207) 767-2649 - Approved for 6 hours.

March 18, 2001 in Old Orchard Beach, ME – Chemical Feed Systems O&M - sponsored by MRWA, (207) 729-6569 - Approved for 3 hours.

March 19, 2001 in Brunswick, ME – Wastewater Operator Certification Review – Class III/IV - sponsored by MRWA, (207) 729-6569 - Approved for 6 hours.

Mar 20, 27 & Apr 3, 10, 2001 in Augusta - Advanced Hydrology - sponsored by JETCC, (207) 767-2649 - Approved for 16 hours.

March 20, 2001 in Bangor, ME – Wastewater Operator Certification Review – Class III/IV - sponsored by MRWA, (207) 729-6569 - Approved for 6 hours.

March 21, 2001 in Houlton - Onsite Installers Workshop - sponsored by JETCC, (207) 767-2649 - Approved for 6 hours.

March 21, 2001 in Belfast, ME – Excavations and Permit Required Confined Spaces - sponsored by MRWA, (207) 729-6569 - Approved for 5 hours.

March 22, 2001 in Presque Isle - Proprietary Devices - sponsored by JETCC, (207) 767-2649 - Approved for 6 hours.

March 22, 2001 in Augusta - Seeded BOD w/ Lab Reporting & QA/QC - sponsored by

JETCC, (207) 767-2649 - Approved for 6 hours.

March 24, 2001 in Livermore Falls, ME – Chemical Feed Systems O&M - sponsored by MRWA, (207) 729-6569 - Approved for 3 hours.

March 28, 2001 in Presque Isle, ME – Excavations and Permit Required Confined Spaces - sponsored by MRWA, (207) 729-6569 - Approved for 5 hours.

March 29, 2001 in Yarmouth - Belt Filter Press - sponsored by JETCC, (207) 767-2649 - Approved for 6 hours.

April 1, 2001 in TBA – Chemical Feed Systems O&M - sponsored by MRWA, (207) 729-6569 - Approved for 3 hours.

April 4, 2001 in Ellsworth - Polymer Sealant Repair and Preventive Maintenance Systems - sponsored by JETCC, (207) 767-2649 - Approved for 6 hours.

April 5, 2001 in Presque Isle - Computer Databases - sponsored by JETCC, (207) 767-2649 - Approved for 6 hours.

April 11, 2001 in Kennebunkport - Pump Station Control Panels - sponsored by JETCC, (207) 767-2649 - Approved for 6 hours.

April 19, 2001 in Augusta - Basic Wastewater Treatment (2 days) - sponsored by JETCC, (207) 767-2649 - Approved for 12 hours.

April 24, 2001 in Bangor - Bypass Pumping - How to Avoid the Headaches - sponsored by JETCC, (207) 767-2649 - Approved for 6 hours.

April 30, 2001 in Bangor, ME – Wastewater Operator Certification Review – Class I/II -

sponsored by MRWA, (207) 729-6569 - Approved for 6 hours.

May 1, 2001 in Presque Isle, ME – Wastewater Operator Certification Review – Class I/II - sponsored by MRWA, (207) 729-6569 - Approved for 6 hours.

May 17, 2001 in Waterville - Biosolids - sponsored by JETCC, (207) 767-2649 - Approved for 6 hours.

May 10, 2001 in Presque Isle, ME – Wastewater Operator Certification Review – Class III/IV - sponsored by MRWA, (207) 729-6569 - Approved for 6 hours.

May 16, 2001 in Augusta - Hydro Cad - sponsored by JETCC, (207) 767-2649 - Approved for 6 hours.

Dick Darling

Spring Certification Exam Notice

If you are planning to take the exam this Spring, the date for the exam is May 16, 2001. Your applications must be

postmarked by March 31, 2001.

Applications that are received by us after April 4, 2001 will be held over until the Fall, 2001 exam. This fall, we had way too many people send in application after the deadline. The rules say “Completed applications with all supporting documentation must be received at least **6 weeks prior** to the examination date.” This allows us to process the applications and order the appropriate number of tests for the exam. Please get your applications in by the deadline!!

Dick Darling

For Practice

1. If the supernatant from an aerobic digester has a high solids content and is returned headworks of the system, how will it most likely affect the activated sludge aeration basin?
 - a. Increase the DO level.
 - b. Increase the MCRT.
 - c. Increase the F/M ratio.
 - d. Increase the removal efficiency.
2. The concentration of dissolved oxygen that may be held in water
 - a. Increases as temperature increased
 - b. decreases as temperature decreases
 - c. is independent of temperature
 - d. increases as temperature decreases
3. The type of solids that is the most difficult to remove using a standard biological treatment process is.
 - a. Organic dissolved
 - b. Inorganic dissolved
 - c. Organic suspended
 - d. Organic dissolved
4. You have a positive displacement pump that delivers 200 gpm against a head of 150 feet with an overall 75% efficiency. If you pay 12¢ per kwh for electricity, how much will it cost you to run the pump 12 hours per day for a year?
 - a. \$8,765
 - b. \$6,382
 - c. \$3,960
 - d. \$2,615

Dick Darling

DEP Changes

Effective Monday March 5, John True became the new CSO coordinator, replacing Steve McLaughlin. John has worked for the Department for 16 years, dealing with project management of wastewater projects

funded under construction grants and the State Revolving Fund. If you have questions regarding CSO issues, please call John at 287-7808 or e-mail him at John.N.True@state.me.us.

Renewal Reminder

If you have an **ODD** numbered wastewater operator certificate, you should have renewed that certificate before **March 1, 2001**. If you have not renewed and your certificate has an odd number, contact us as soon as possible. Technically, anyone who should have renewed their certificate by March 1, 2001 and did not submit a renewal form, proof of training and the renewal fee is on the list of inactive operators. Inactive operators cannot be the “in responsible charge” of a treatment facility, which means they cannot legally sign DMRs or 49 Forms.

Dick Darling

Answers to For Practice:

1. c High solids in the supernatant will add food to the system, which will increase the F/M ratio.
2. d Colder water can hold more dissolved oxygen.
3. b Activated sludge systems remove dissolved organic solids by absorbing that material into the cells of the organisms in the sludge. Organic and inorganic suspended solids are removed by physical settling in the secondary clarifiers. There is, however, no biological or physical removal of dissolved, inorganic solids.

4. c Horsepower required = (flow in
gpm \times head in feet)/(efficiency \times
3960)
Horsepower requires = $(200 \times$
 $150)/(0.75 \times 3960) = 10.10$ hp
1 hp = .746 kW: 10.10 hp = 7.53
kW
 $7.53 \text{ kw} \times 12 \text{ hr/day} \times 365 \text{ days/year}$
 $= 33,000 \text{ kWh}$
 $33,000 \text{ kWh} \times \$0.12/\text{kWh} = \$3,960$

Dick Darling